## **ABSTRACT**

A process is described for fluid catalytic cracking of hydrocarbons with high levels of basic nitrogen, where hydrocarbon feedstocks A and B with different levels of basic nitrogen are injected in a segregated fashion, into different risers of a multiple riser FCCU that possesses at least two risers. The injection of the feedstocks is made in such a way that feedstock A, to be injected in the riser with greater volume – main riser 7 – possessing a level of basic nitrogen at least 200 ppm lower than the level of feedstock B to be injected into the riser with lower volume – secondary riser (8).